

WHAT IS CLAIMED IS:

CWT/3 >

1. A data storage card comprising
a glass substrate having first and second edge;
a data surface region located on said glass substrate
between said first and second edges, said data surface region
comprising a magnetic storage medium having at least one layer of
high density, high coercivity magnetic material for storing
magnetic signals.
2. The date storage card of claim 1 wherein said at least
one magnetic material layer is a thin film layer of high density,
high coercivity magnetic material having a predetermined magnetic
field orientation for storing data.
3. The data storage card of claim 1 wherein said at least
one layer of magnetic material is form of nickel-cobalt.
4. The data storage card of claim 1 wherein said at lest
one layer of magnetic material is form of plated nickel-cobalt.
5. The data storage card of claim 1 wherein said at lest
one layer of magnetic material is form of sputtered nickel-
cobalt.
6. The data storage card of claim 1 wherein said substrate
is moved relative to said data processing station.
7. The data storage card of claim 1 wherein said data
processing station is moved relative to said substrate.
8. The data storage card of claim 1 wherein said data
processing station and said substrate are moved relative to each
other.
9. The data storage card of claim 1 wherein said substrate
is substantially planar and generally rectangular in shape and
said data storage device is generally rectangular in shape.

10. The data storage card of claim 9 wherein said substantially planar and generally rectangular shaped substrate including said data storage device is transported past a data processing station.

11. A portable data storage card adapted to be used in a card processing system having a data processing station comprising

a data storage device adapted to interact with a data processing station when a portable card and a data processing station are moved relative to each other, said data storage device including

a glass substrate having a predetermined shape; and at least one layer of high density, high coercivity magnetic material for storing magnetic signals.

12. The portable data storage card of claim 11 wherein said at least one magnetic material layer is a thin film layer of high density, high coercivity magnetic material having a predetermined magnetic field orientation for storing data.

13. The portable data storage card of claim 11 wherein said substrate has two surfaces and said protective coating is applied to at least one of said two surfaces.

14. The portable data storage card of claim 11 wherein said substrate has two surfaces and said protective coating is applied to at least one of said two surfaces and wherein said data storage device is located on the other of said two surfaces and said protective coating is applied to at least said data storage device.

15. The portable data storage card of claim 11 wherein said protective coating is adapted to interface with and be responsive to a data processing station when said substrate and data processing station are moved relative to each other to position said substrate proximate said data processing station to enable data flow therebetween.

16. The portable data storage card of claim 11 wherein said substrate is moved relative to said data processing station.

17. The portable data storage card of claim 11 wherein said data processing station is moved relative to said substrate.

18. The portable data storage card of claim 11 wherein said data processing station and said substrate are moved relative to each other.

19. The portable data storage card of claim 11 wherein said substrate is substantially planar and generally rectangular in shape and said data storage device is generally rectangular in shape.

20. The portable data storage card of claim 19 wherein said substantially planar and generally rectangular shaped substrate including said data storage device is transported past a data processing station.

21. The portable card of claim 11 wherein said at least one thin film layer of high density, high coercivity magnetic material is a sputtered layer.

22. The portable card of claim 11 wherein said at least one thin film layer of high density, high coercivity magnetic material is a plated layer.

23. The portable card of claim 11 wherein said at least one thin film layer of high density, high coercivity magnetic material is an oxide layer.

24. The portable card of claim 11 wherein said at least one thin film layer of high density, high coercivity magnetic material is a web coated layer.

25. A card and card writer/reader system comprising an encodeable card having

a body having upper and lower surfaces and side and end edges, said body including on at least one of said upper and lower surfaces a data storage section, said card being adapted to interact with a data processing station when said card and said data processing station are moved relative to each other to at least one of write encoding signals in said data storage section and read encoded signals from said data storage section, said data storage section including

a glass substrate; and

at least one layer of high density storage material for storing data.

26. The card and card writer/reader system of claim 25 wherein said an encodeable card is a magnetically encodeable card and wherein said data storage section has at least one thin film layer of high density, high coercivity magnetic material having a predetermined magnetic field orientation for storing data.

27. The card and card reader system of claim 26 wherein said transducer is a thin film head.

28. A card and card writer/reader system comprising a magnetically encodeable card having

a body having upper and lower surfaces and side and end edges, said body including on at least one of said upper and lower surfaces a data storage device adapted to interact with a data processing station when said card and said data processing station are moved relative to each other, said data storage

device including at least one thin film layer of high density, high coercivity magnetic material having a predetermined magnetic field orientation for storing data;

a first transducer for reading said magnetically encoded signals from said data storage device during relative movement of said card relative to the data processing station to enable data flow between said data storage device and said transducer; and

a second transducer for writing magnetically encoding signals in said data storage device as magnetically encoded signals during relative movement of said card relative to the data processing station to enable data flow between said data storage device and said transducer.

29. The card and card writer/reader system of claim 28 wherein said transducer is an inductive head.

30. The card and card writer/reader system of claim 28 wherein said transducer is a thin film magnetic head.

31. A method for reading a card with a card reader comprising the steps of

forming on a glass substrate of a card a data storage section a data surface region comprising a magnetic storage medium having at least one layer of high density, high coercivity magnetic material for storing magnetic signals adapted to interact with a data processing station when said card and said data processing station are moved relative to each other to at least one of write encoding signals in said data storage section as encoded signals and read encoded signals from said data storage section; and

moving said card and data processing station relative to each other to interface said data storage section relative to a transducer to enable data flow therebetween.

32. The method of claim 31 wherein the step of forming includes forming a data storage device having at least one thin film layer of high density, high coercivity magnetic material having a predetermined magnetic field orientation for storing data.

33. The method of claim 32 wherein said step of moving includes using a transducer that is an inductive head.

34. The method of claim 32 wherein said step of moving includes using a transducer that is a thin film head.

35. A method for reading a card with a card reader comprising the steps of forming on a glass substrate of a card a data storage section including a thin film of magnetic material having a predetermined magnetic orientation for storing data in a predetermined axis; and

moving said card and data processing station relative to each other to interface said data storage section relative to a transducer to enable data flow therebetween.

36. A data storage device comprising a glass substrate; at least one layer of high density, high coercivity magnetic material formed on said glass substrate for storing data; and a non-magnetic layer formed on said magnetic layer.

37. A data storage device comprising a glass substrate; a substrate having at least one surface; at least one high density magnetic material layer disposed on said substrate for storing magnetic signals with the coercive material axis of magnetization oriented in a predetermined direction relative to said at least one surface of said

substrate.

38. A magnetic signal processing apparatus comprising
a magnetic recording medium having
a glass substrate;
a high density magnetically coercive material for
storing magnetic signals with the coercive material axes of
magnetization oriented in a predetermined direction; and
a non-magnetic layer formed on said magnetic layer.
a magnetic transducer positioned relative to a surface of
said recording medium for transferring signals with respect to
the recording medium; and
a drive member operatively coupled to at least one of said
transducer and said recording medium to provide relative movement
therebetween.

39. In a method of processing magnetic signals using a
magnetic recording medium having a high density magnetically
coercive material for storing magnetic signals with the coercive
material axes of magnetization oriented in a predetermined
direction comprising the steps of:

providing a glass substrate for supporting said a high
density magnetically coercive material;
providing on said a glass material a layer of high density
magnetic material; and
providing a non-magnetic layer of material on said magnetic
layer of material.

40. A system comprising
a magnetic recording medium having
a glass substrate;
a high density magnetically coercive material for
storing magnetic signals formed on said glass substrate with the
coercive material axes of magnetization oriented in a
predetermined direction:

a non-magnetic material disposed on said high density
magnetically coercive material; and

a drive member operatively coupled to at least one of said
transducer and said recording medium to provide relative movement
therebetween.

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COMPOSITION OF DRAWINGS